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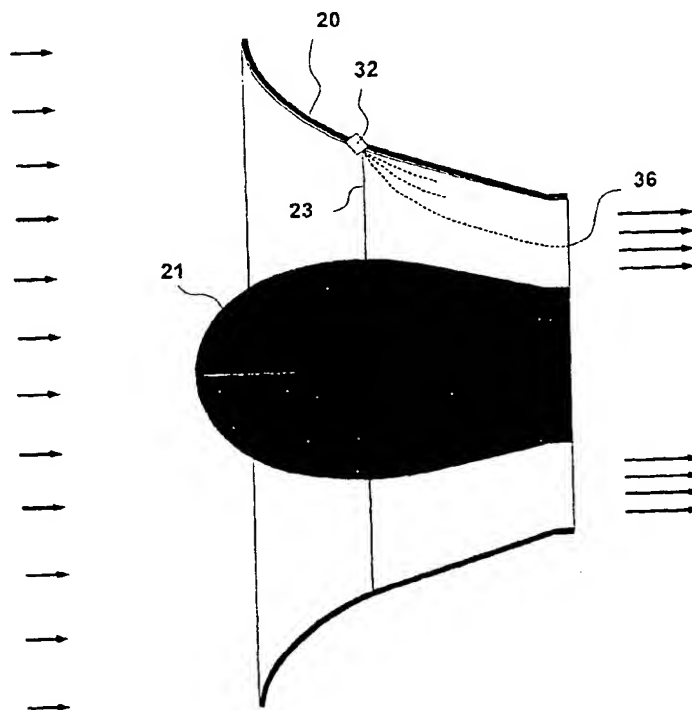
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[Continued on next page]

(54) Title: A METHOD FOR CLEANING A STATIONARY GAS TURBINE UNIT DURING OPERATION



(57) Abstract: A method for cleaning a stationary gas turbine unit during operation, said unit comprising a turbine, a compressor (16) driven by the turbine, having an inlet (E), an air inlet duct arranged upstream of the air inlet of the compressor, the inlet duct having a part (15) of the duct adjoining the inlet of the compressor and having decreasing cross section in the flow direction in order to give the air flow a final velocity at the inlet (E) to the compressor (16), a spray of cleaning fluid being introduced in the inlet duct (15). The cleaning fluid is forced through a spray nozzle (32) with a pressure drop exceeding 120 bar to form a spray the drops of which have a mean size that is less than 150 μm , the spray being directed substantially parallel to and in the same direction as the direction of the air flow. The spray is introduced at a position (23) in the duct section (16) where the air velocity is at least 40 per cent of the final velocity at the compressor inlet (E), so that the drops of the liquid spray are caused to acquire a slip ratio of at least 0.8 at the compressor inlet (E).

WO 2004/055334 A1

**Declarations under Rule 4.17:**

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC,

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